

the 15 former republics. Since 1991 Zabelin has been the chief assistant to Alexei Yablokov, advisor to Boris Yeltsin on ecology and health, working to draft environmental legislation to prevent exploitation of Russia's natural resources as the nation opens its borders to corporations from around the world.

North America: JoAnn Tall. Though suffering from debilitating rheumatoid arthritis, Tall has spent years working from the Pine Ridge Reservation in South Dakota to organize Native American people to prevent environmental abuses by corporations and governments on tribal lands. Tall co-founded the Native Resource Coalition in 1989 to educate indigenous communities about environmental threats. Some of her successful efforts include stopping nuclear weapons testing in the Black Hills and preventing location of a hazardous waste site on the Pine Ridge and Rosebud Reservations.

Africa: Garth Owen-Smith and Margaret Jacobsohn. Working from a remote area of newly independent Namibia known as "World's End," Smith and Jacobsohn have devised and implemented a unique two-way conservation system to combat poaching of black rhino and desert elephant populations using unarmed local herdsmen as guards. In contrast to the increasingly militarized response to poaching in other areas, the peaceful "community-based conservation development" plan is considered a model for African communities and has resulted in an increase in wildlife populations.

South/Central America: Juan Mayr. Despite working under volatile and dangerous conditions, including death threats, Mayr, a photographer turned journalist, has been successful in forging an environmental alliance between Colombian guerillas, peasants, and the Kogi, a pre-Colombian community. The Fundacion Pro Sierra de Santa Marta works to protect

the world's highest coastal mountain (18,947 feet above sea level) and its microcosm of biological diversity in which arctic, tundra, rainforest, and desert environments are imperiled.

Australia/Oceania: John Sinclair. For 20 years, Sinclair has helped define public interest law in Australia by challenging the government on environmental protection, particularly in regard to Fraser Island, the world's largest sand island, located off the coast of Queensland. Sinclair has succeeded in halting the environmentally damaging practices on the island of sand mining and logging the island's rainforest and in the process has raised public awareness of the island's importance. To date most of the island has been declared a national park, and in 1992 it was designated a World Heritage Site.

Dioxin and Ecological Risk Assessment

An interim report issued by EPA on April 23 states that residues of dioxin in fish from Lake Ontario have decreased over the past decade. Lake Ontario has contained the highest levels of dioxins of all the Great Lakes, but according to Phil Cook of the EPA in Duluth, Minnesota, the trend is the same for all the Great Lakes and most aquatic environments in general. "Lake Superior [dioxin] levels were not detectable in many fish . . . the levels were in the part per trillion range," said Cook. Cook added that dioxin levels in fish depend on factors such as the age and fattiness of the fish, for example, and that the decreasing trend may not be true for all aquatic environments, but that "the trend has definitely been down." The interim report, which evaluates the data on dioxin and the aquatic environment and associated wildlife, is the first step in a long-term program to reassess the ecological risks of dioxin.

Evaluating the risks of dioxin to the environment is one part of EPA's reassess-

ment program. A health risk characterization, resulting from a reevaluation of data on human health and exposure, will be submitted to EPA later this year.

The interim aquatics report focuses on the bioaccumulation of dioxin in the aquatic environment and discusses issues related to risk characterization. Specific findings of the report are:

- For aquatic organisms, the reproductive system is the most sensitive to the effects of dioxin, resulting in early mortality, especially in fish.
- Of nonaquatic wildlife, fish-eating mammals and birds are the most susceptible to the effects of dioxins, but data on these dietary relationships are limited.
- Significant uncertainties remain concerning levels of dioxin in aquatic environments because exposures occur through water, sediment, and diet.

EPA will sponsor an expert panel workshop later this year which will evaluate the data and methods in the interim aquatics report for use in ecological risk assessment. A final report from this workshop, incorporating research now in progress, will be published in 1995.

EPA recently used concepts similar to those in the interim aquatics report to formulate criteria for dioxin under the Great Lakes Initiative. The period for public comment on the Great Lakes Initiative proposal closes in mid-September.

Pollution Auction

For sale: Acid rain. Cheap. Contact EPA. The EPA didn't actually advertise its first-ever auction of pollution allowances in this way. Nevertheless, more than 150 bids were made on March 29, amounting to over \$21 million, at the Chicago Board of Trade's auction of the rights to emit sulfur dioxide, the main component of acid rain.

The CBOT held the auction on behalf of the EPA, which is responsible for administering a national market-based pro-

Is dioxin decreasing? The flow of toxic effluent through the aquatic food chain.

